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TRIUMPHS OF INTELLECT.

A

LECTURE,

DELIVERED OCTOBER, 1824,

IN THE

CHAPEL OF WATERVILLE COLLEGE.

BY STEPHEN CHAPIN, D. D.
PROFESSOR OF THEOLOGY IN SAID COLLEGE.

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WATERVILLE, OCTOBER, 1824.

REV. PROFESSOR,

THE subscribers in behalf of the Students of Waterville College respectfully request the publication of your very excellent Lecture, delivered in the College Chapel, October 15th, 1824.

ELIJAH P. LOVEJOY.
ELIJAH FOSTER.
ORAN TRACY.

PROFESSOR CHAPIN.

TO THE STUDENTS OF WATER-VILLE COLLEGE.

THIS LECTURE,

FIRST DELIVERED FOR THEIR BENEFIT, IS NOW AT THEIR REQUEST SUBMITTED TO THEIR DISPOSAL; ACCOMPANIED WITH THE BEST WISHES OF THE AUTHOR FOR THEIR HIGH ATTAINMENTS IN EVERY THING THAT WILL RENDER THEM USEFUL ON EARTH, AND PREPARE THEM FOR THE BLESSEDNESS OF HEAVEN.

STEPHEN CHAPIN.

Lecture.

THE time has arrived for the resumption of our public labors. According to previous intimations, you now have a right to expect the commencement of our triennial lectures. But this course we shall, for once, defer, that we may discuss one more miscellaneous topic. The subject to which we refer is, the triumphs of intellect. By the triumphs of intellect, we mean distinguished success, attending well directed and persevering applications of the mental powers. That intense studies are generally crowned with high attainments admits of very satisfactory proof.

It is manifestly the intention of our Creator, that the mind shall be improved and enriched by the employment of appropriate means. The Almighty could easily have formed man with the capacity of the highest Angel, and then have miraculously imparted to him all the knowledge, which he was capable of receiving. This capacity he could continue to enlarge for interminable ages; and as it was increased, he could, without the help of human education, have filled it with the treasures of science. But he was pleased to pursue a different method. Since the formation of our first parents, man commences his existence in a state of infancy. At first his pow-

ers are extremely feeble and wholly destitute of knowledge. He has every thing to learn. There are only two ways, in which his mind can be improved and stored with wisdom. It must be rendered thrifty and fruitful by miraculous showers of intellectual manna, or by the ordinary use of means—by personal discipline and laborious studies. This latter is the course, that infinite wisdom has selected, and it is only by steadily pursuing it, that any one can secure fair grounds for literary fame. Knowledge is a pearl of great price. It is not, however, brought to our hands by the ministry of Angels. Before you can be enriched and adorned with this invaluable jewel, you must search, you must dig for it with a desire, which nothing can gratify, but the actual possession of the coveted good. If thou criest after knowledge, and liftest up thy voice for understanding, then shalt thou find the knowledge of God.

Very wonderful success has attended the efforts to increase the corporeal powers. There is, perhaps, but little native difference in the bodily faculties of persons, blessed with equal goodness of constitution. But the actual difference is often surprisingly great. The untaught in music observe only broad distinctions in sounds, while masters in the science discriminate the slightest discords, and all the delicate varieties in the tones of the voice. How nice the smell and the taste of the city epicure, when compared with the bluntness of these senses in the savage of the forest! Compare feats of dexterity with the clumsy motions of those who have never

disciplined their limbs to move with quickness and precision. The balancing master walks his slack rope with almost as much ease, as the honest farmer keeps his furrow. With what amazing celerity and exactness does the organist, or the chirographer, move his fingers, in cutting several hundred strokes, or in touching as many different notes every passing minute! How exact and how swift the blow of the fencer!—How obedient are the edge and the point of the surgical instrument in the hand of the skilful operator! How closely will they play around a vein, or an artery, without injuring the life of the patient! Even sickly and delicate constitutions have been rendered healthy and robust by proper exercise and regimen. Laomedon, to cure a disorder on his spleen, applied himself to running, and continued constantly a great length of way, till he gained such fine health and soundness of breath, that he was emboldened to strive for the crown in the Olympic games, and won the laurel in one of the long races. But these are triumphs over muscles, and cords, and bones. Are these, then, the only parts of man, which are docile and susceptible of high improvement? If the animal system may be trained to such a state of perfection, is not the argument from analogy, quite irresistible, that the mental powers too are capable of being equally improved by well directed and steady discipline?

Astonishing improvements have been made in useful arts. It is true that advances in these arts imply the existence and the success of intellectual effort. But there may be great mechanical

improvements without much mental exertion. There is an important difference between designing and executing. The former requires the exertion of mind,—the latter, strength of body, and extended practice. Unquestionably many a curious artizan wrought upon the tomb of Mausolus and the temple of Diana, who were strangers to that genius, which enabled Scopas and Ctesiphon to plan those buildings, which long stood among the wonders of the world. Would you see the progress of arts, compare the miserable shelters of the northern barbarians with the superb seats and palaces of the Greeks and Romans. Compare the kraals of Africa with the splendid cities of Europe. Compare the birch skiff of the Indian tribes with those lofty fleets, which form the terror and the glory of the ocean. In the wilds of this country there may now exist many an untaught genius, whose rude figures and sketches of the human form present only a distant resemblance of man; yet with requisite means and application he might furnish productions, which would vie with the best specimens, ever placed in the Roman Vatican. In advancing the fine and useful arts to a high point of excellency, many difficulties have been overcome, and long and patient labors endured. Raphael long handled his brush and made many a trial, before he completed those pieces which have excited the admiration of subsequent ages. Phidias long wrought with the chisel and hewed and polished many a block of marble, before he could impart celestial dignity to his famous statue of Minerva. But shall the painter

and the sculptor, by unwearied trials, vastly increase the discriminating powers of the eye, and the skill of the hand in changing the lines, and the expression of the statue and the picture, and thus make them approximate, more and more, towards a perfect resemblance of the original character?—shall the builders of navies and cities gradually improve upon their models, and in their style of workmanship, till they acquire the highest perfection in architecture? and yet are there no achievements to be won in training the moral and intellectual powers? are these the only attributes of man, which are incapable of improvement? How shall we account for the amazing diversity of capacity and character, which prevails among the tribes of the earth? The moral feeling is the most acute among those nations, where christianity has been permitted to exert its highest influence, and is the most torpid in the darkest regions of paganism. How vast the difference between the cannibal of New-Zealand, and the humane disciple of the compassionate Saviour! How callous the heart of the cruel Nero! How tender that of the benevolent Howard! How feeble the intellectual sight of the sottish Boschemen, when compared with the strong vision of the exalted Bacon! But why this difference? This globe is divided by rivers, mountains, forests, deserts, and seas. But these natural divisions have not produced the great difference between the knowledge and refinement of the nations, dwelling in the several grand portions of the earth. If the Scythians were far behind the Greeks in a knowledge of the sciences, it was not

because their native capacities were inferior. The states of Greece enjoyed a commercial intercourse with the Phœnicians and Egyptians, from whom they received their knowledge of letters, and of theology, policy, arts and sciences. Thus it is evident, that the difference in the state of learning and civilization, that prevails among mankind, is not to be ascribed to any original diversity of ability. But it must be attributed to a difference in the degrees, in which they possess and improve the means of education. The man, who directs his attention to the cultivation of his mind, will find that all its powers will flourish. His memory will become more retentive, his judgment more correct, his reason more acute, his discrimination more exact, his taste more refined, his invention more fertile, and his fancy more brilliant. Application improves and invigorates the mental system. Every step in the gradation of learning facilitates and heightens the enjoyment of the next. The scholar, who is well versed in the grammar of science, will soon be able to manage the sublime ethics of Edwards, and the principia of Newton.

But the truth of our general theme will be best supported by an appeal to facts. Here examples in point come to hand in such numbers, that it is difficult to make the best selection.

To give you an account of all the success, which has attended the exertion of the human mind, would indeed require the recital of the whole history of science. Men in the first age of the world possessed but very limited views. They knew the names of a few objects around

them, and how to employ the simplest means of self-preservation. They knew not how to till the soil, to navigate the seas, to work metals, to erect buildings, or to fabricate their clothing. All the discoveries and improvements, which have since been made in the various departments of learning, are so many trophies of mental labor. Many illustrious individuals have contributed much to promote the happiness of their fellow men and to enlarge the boundaries of knowledge by consecrating all their talents to scientific pursuits. We have time to mention a few only out of many such benefactors to the human family.

The first that we shall name is Solomon. Though his pen, when he wrote to enlarge the canon of Scripture, was guided by the Spirit of inspiration, yet his attainments in natural science were not the result of miraculous aid. He probably had reference to his own experience, when he said: "Through desire a man, having separated himself, seeketh and intermeddleth with all wisdom." He was indefatigable in his researches in to physiology. He knew that much study is a weariness of the flesh, and of making books there is no end. How many manuscripts of his have gone down to oblivion, we are not informed. A sacred writer has furnished us with a summary of the subjects on which he wrote. "And Solomon's wisdom excelled the wisdom of all the children of the east country, and all the wisdom of Egypt.—And he spake three thousand proverbs: and his songs

were a thousand and five. And he spake of trees, from the cedar-tree, that is in Lebanon, even unto the hyssop that springeth out of the wall: he spake also of beast, and of fowl, and of creeping things, and of fishes." This is a noble proof of the successful application of his extraordinary powers! What an invaluable treasure would the learned now possess, had these works been faithfully transmitted to the present generation! Moses was not only mighty in words, and in deeds; but he was, at an early age, learned in all the wisdom of the Egyptians, a nation distinguished for their knowledge in the sciences, especially in astronomy and natural philosophy. Why was Paul so conspicuous a character wherever he moved? how did he maintain such influence over society? It was not simply because his native powers were so exalted, nor because they were aided by the immediate agency of the Holy Spirit; but also because he had been a laborious scholar at the feet of Gamaliel, and had consecrated the discipline and the furniture of his mind, which he there acquired, to the service of the church.

I need not relate to the classic scholar the inextinguishable zeal of the Athenian Orator, and the incessant pains which he took to correct not only his stammer and shrug; but also to expand his chest, and to invigorate his lungs. When the victories of the Macedonian army threatened the subjugation of Greece, he mounted the rostrum, and by the fire and power of his eloquence, he rekindled the spirit of war, and his countrymen, losing sight of all considera-

tions of blood and treasure, flew to their arms with enthusiastic determination to fall in battle, or to maintain their independence. No wonder that the tongue of this man conveyed more terror even to the throne of Philip, than all the legions of Greece. Such was the inimitable excellency of his orations, that Tully, when asked, which of them was the best, replied, "the longest."

The master of Roman eloquence early made the praises of oratory his supreme object of pursuit. To secure this, he employed all his intellectual powers—spent his time with books and learned men, and, aware that his success depended upon the continuance of his health, became temperate in his habits, and regular in all his exercises. Soon the conspiracy of Catiline called into action all the resources of his gigantic mind, and gave him an occasion to display that power of oratory, which procured him the honors of a triumph, and the title of the Saviour of his country, and the second Founder of Rome.

Cadmus, prince of Pœnicia, in his youth became master of all the sciences, taught among his enlightened nation. When he left his native country and settled among the Grecians, he instructed them in the use of the alphabet, and in the knowledge of commerce, astronomy and navigation. It was this introduction of the sciences, among the Greeks, which exalted them so highly above the surrounding nations, and gave them the first rank in the literary world.

Copernicus, by bending all the powers of his mind to astronomical studies, overthrew the Ptole-

maic scheme of the heavenly bodies. He first demonstrated what Pythagoras had long before asserted, that the sun is placed in the centre of motion, where he sheds his light and warmth and controling power over all the planets of the solar system.

Sir Isaac Newton, whose renown has gone abroad over the earth, hath informed us that he owed his celebrity more to the continued application of his mind to hard study, than to the superiority of his mental powers. He transcribed, with his own hand, his famous work on chronology, no less than thirteen times. "He gave his silent hours to the labors of the midnight oil, and plied that unwearied task, to which the charm of lofty contemplation had inured him, till he discovered the mechanism of the planetary system,—the composition of light,—and the cause of those alternate movements, which take place on the waters of the ocean.—These form his actual and visible achievements. These are what the world look at as the monuments of his greatness." Yet after all, he has with wonderful modesty said, "If I have done the public any service, it is due to nothing but industry and patient thought."

Sir Wm. Jones, before he was forty-eight, became master of twenty-four different languages, in most of which he was critically versed. Besides his classical learning, and his acquaintance with the whole range of oriental literature, his legal knowledge was such as to elevate him to the office of chief Judge in the supreme court of Calcutta. This distinguished scholar did not prostitute the rich treasures of his mind to the sup-

port of infidelity, but they were made subservient to the cause of Christianity. In one of his works he has supported the validity of the Mosaic history of the creation in a manner, more satisfactory, and more convincing than any other writer. But, my friends, the time would fail me to speak of a small portion only of those men of eminent science, who have shone as lights in the literary firmament, both in ancient and modern times. Nor need I inform you that men, distinguished for their achievements in knowledge, are men equally distinguished for their close thinking and untiring research. We know that some have set up the opinion that neglect in study, irregularity in habits, and a contempt of classical rules, are sure indications of a lofty genius. But this preposterous sentiment, gotten up, it seems, to secure a license for sloth and dissipation, has long since been exploded; and now the scholar, who sits long at his studies, and digs hard to reach the mines of knowledge, is no longer viewed as a plodding spirit; but as one who gives the brightest presages of his future supremacy.

Would you then enjoy the treasures of science, you must early resolve to put forth all your intellectual strength. Having but just commenced your literary course, you must be, in some measure, ignorant of your intellectual powers; and you may never know the extent of them, unless you are determined to try them by repeated efforts. Students often ascribe the mediocrity of their attainments to their limited talents and advantages. But do they not, sometimes, mistake in selecting the spot, where to lay the burden of their

complaint? Instead of impeaching the liberality of their Maker in the bestowment of his gifts, let them leave the blame, where it ought to be left, at the door of indolence. Your period for improvement is short; and if you waver through the morning of your life in resolving what you will do, you may sink into the imbecility of old age, and leave all your late designs unaccomplished. Most men of distinction early settled upon some one grand object of pursuit. And this object did not glimmer in their sight, as if half merged at the distant horizon; but it rose up before them in a commanding attitude, as the lofty pyramids of Egypt loom to the view of the curious traveller, to guide him over its extended plains. Demosthenes and Cicero, when they were mere boys at school, were fired with the spirit of ambition, and fixed upon the prize, which they actually won. Alexander, in his childhood, grieved at every conquest of his father, because he thought that every such victory would detract from his own glory in conquering the world. So early had he settled his plan of future operation! Cæsar, before he was seventeen, was consecrated priest to Jupiter, and even then resolved to reap the brightest laurels on the field of Mars. Pope at the age of twelve fixed upon his course of study, and determined that poetical merit should be the summit of his wishes. At the early period of sixteen, he began his career for the highest mead in the hand of the Muses. Would you then be eminent, you must not only resolve to task your minds, but you must select the sphere in which you intend to move.

I would not, however, wish you to narrow the basis of a liberal education, to favor any particular pursuit; because this foundation is none too broad to support professional fame. But still, as you do not possess that compass of mind, and that versatility of genius, which will enable you to excel in every branch of science, you must, if you would make the most of your talents, direct them to some one specific field of action. Have you gigantic strength of body, you will not therefore fancy, that there are no limits to your power, and that you can overthrow the Andes, or carry off the Alps. Have you made great advances in the study of nature, you must remember, that your capacities are finite, and never presume, that you can open the whole arcana of Heaven. Some, to gratify their vanity in acquiring the fame of universal scholarship, have wasted their powers upon vast and diversified regions of science, "just as some ambitious heroes have lost their empire by aiming at universal conquest." Concentrate then your powers, and be content to cultivate a limited portion, and your literary harvest will be much more abundant, than if you should scatter your strength over a wider territory, than you can well improve. While Pope confined his attention to his original object, he was successful; but when he divided his powers, and attempted to vie with painters, he failed, and, at once, betrayed mistaken pride and ungratified vanity.

Be not soon discouraged, if at first you make but slow progress. Students are often disheartened because their first advances are slow; es-

pecially if they are outstripped by minds of a quicker expansion. Some capacities are like free soils, that promptly yield a light crop with but little labor, others again are like lands of a more fixed character, that must endure a severer process of culture, before their strength can be evolved. Some scholars in the outset of their history gave no presages of their future greatness. But the faint and slow dawnings of genius have, like the protracted twilight of the higher latitudes, been followed by a long and brilliant day. Mr. Scott, when a school-boy, could not write the short themes allotted him by his master, and it seemed to him a perfect mystery how any of his mates could perform the task. Yet by persevering application he gained a high rank among theological writers. Dr. Reid in his youth gave no indications of his subsequent eminence. All that his early tutor, who best knew his talents, ventured to predict of him was, "that he would turn out to be a man of good and well wearing parts." He little thought, that this feeble boy was destined to grow up to Herculean strength, and to philosophize upon the intellectual world with as much fame, as Newton had done upon the material system.

Let not formidable obstructions shake your courage or cool your zeal. It seems to be the purpose of heaven, that we shall gain nothing durable and of high value without much toil and expense. Marble is found in hard quarries and must be relieved from its bed by great effort, and then it must feel many a blow before it will present the charms of Venus de Medicis. Gold,

the richest metal among currency, is sunk in deep and sickly mines, and must be raised with great toil, and then pass through many a wearisome process at the mint, before it receives the coiner's stamp. Diamonds, the richest of gems, are fast bound between layers of rocks, and must be pried out with leavers of iron, and then vast expense and labor must be endured to bring them to the polish of a first water diamond. Can you then expect to be put into the possession of the invaluable treasures of science without hard toil and patient research? About two hundred years ago, what various and conflicting opinions prevailed on the subjects of natural philosophy. Upon what a chaotic world did Bacon commence his labors! how dark and formidable the prospect before him! Yet he was not disheartened, though he was so sensible of obstructions, that to some of his works he prefixed this motto, "Inveniam viam aut faciam."

Would you enjoy the triumphs of intellect, you must attempt great things and expect great things. Upon this principle acted the immortal Carey and his associates in their missionary enterprise. Milton early resolved to accomplish three great things,—to write the History of his own country, a Latin Dictionary, and a Heroic Poem, and from this purpose nothing could divert him, no, not even the loss of his eyes. Pope at the age of twenty-five resolved upon his great work of translating Homer's Iliad, and in the space of five years he completed his design to the admiration of the literary world. Dwight, it is said, resolved, in his juvenile years, to be-

come the head of Yale College, and of this object he never lost sight until he was elevated to the presidential chair of that Seminary, where he presided for a series of years with such distinguished ability, as spread his fame over both the western and eastern world. Think not that you will ever do much by mere accident. You must design to be something, and labor with unremitting assiduity to accomplish your purpose. Two things are necessary in any great undertaking, namely, well concerted plans and undying perseverance in executing them. When ability in counsel, and excellency in working meet in an individual, they form the great character. But they are sometimes found separate. Charles the first was able in the cabinet, but irresolute in practice. In planning he shone as a wise statesman, but in the field of action he was a wavering and feeble Prince. But Cromwell possessed a mind both strong and elastic. When he had fixed on his course, he pursued it, with all the majesty of self-confidence, and unbending resolution. Hence obstructions retired before him, as feebler beasts flee before the lion of the forest. It is curious to see how obsequiously opposition will give way, and bow around an invincible character, as if conscious of the folly of contending with a spirit, that nothing can change or intimidate. It may cause you many painful efforts to weigh all the arguments, which ought to be examined in settling upon your profession in life. But let this be done with as much despatch as is compatible with safety. Waste not your best spirits in vexatious balancings, in feeble oscilla-

tions; but settle early on the point of rest, that the whole power and fire of your mind may be spent in the successful accomplishment of your well concerted measures. The mighty soul of Cæsar was hugely agitated on that night in which he deliberated, whether he should convey his troops over the river, which divided Italy from Cisalpine Gaul. The boldness and the peril of the enterprise, the dubious and momentous result of a civil war, staggered his mind, and, for a while, he hung in the agonies of suspense. But no sooner had he said, "Let the die be cast," than he immediately crossed the Rubicon, and rested no more till the great question was decided, whether he or Pompey should rule the Roman world.

What wonders will firmness and resolution do even in a bad cause! When Almagro, Pizarro, and Deluques, had formed their great and bloody project of conquering Peru, they celebrated mass in one of the Spanish cathedrals "as a pledge of the commencement of their undertaking, and then proceeded with unrelenting firmness to finish their design, till they attained at length a success over which humanity will forever weep."

If you would rise to literary eminence, you must not be forgetful of your health. The power of sympathy between the mind and the body is very great. If the latter be firm and healthy, the former will be active and vigorous. It is true that some minds of great force and of high improvement have inhabited very feeble constitutions. But, generally speaking, good health is essential to support the mind in putting forth all

its powers in conquering the highest branches of knowledge. There must be some strength of stamina in the physical system, or it will be liable to give way under the mighty workings of the soul. Heavy machinery, when driven fast, must be supported by an engine firm and massy. The arm that is all flesh, that is not stiffened and strengthened with cords and bones, cannot strike a hard blow. So the intellectual powers must be supported and braced by muscular vigor, or they will fail in protracted and laborious studies. All distinguished scholars, both of ancient and modern times, have felt the importance of this subject. If you desire to intermeddle with all wisdom, you must separate yourselves from indolence, dissipation and intemperance. How many fine intellects have crumbled away under the rust of sloth! how many have scattered their strength in the wind by floating from object to object! and how many bright spirits, by sensual indulgences, have been merged into sottishness! Let then the preservation and the improvement of your health form a conspicuous part in your system of education. Be temperate in all things,—in food,—in exercise,—in rest, and in studies. Few scholars can riot in dainties, or sacrifice to Bacchus, and yet be favored with the inspirations of wisdom.

You must not only be constant in your labors, but you must feel an enthusiastic zeal and delight in your advances in knowledge. Minerva is a jealous goddess, and puts a high price upon the honors of her court. She will not permit her pupils to play the truant, or to waste their hours in

soft slumbers, and yet expect the rewards of merit. It is only upon the heights of Parnassus that she distributes her laurels. You must therefore climb and cling to its rugged sides, till you gain the summit, before you can win the crown. Aristotle was moderate in his meals, slept but little, and always with one hand out of his couch with a bullet in it, which, by falling into a brazen vessel underneath, might early awake him to renew his studies. Archimedes was so absorbed in his sublime speculations, that he often forgot his own person, his food and all surrounding objects. And when pulled away from his studies by his friend to bathe for his health, his mind was still intent on his subject, and he drew his diagrams in ashes, or upon the walls of his bath, or upon his newly anointed body. When he had solved a favorite problem, or had ascertained by a new hydrostatic experiment the amount of brass, which the goldsmith had mixed with the gold, while making the king's crown, he was filled with transports of joy. The celebrated Mr. Rittenhouse of America, was, when a boy, employed in cultivating the soil. And so intent was he in acquiring scientific knowledge, that his plough, the fences, and the stones of the field where he labored, were marked with the figures which he drew to facilitate his progress in mathematical demonstration. He was one of those who were appointed to calculate the transit of Venus, as it was to happen June 3, 1769. "This phenomenon had never been seen but twice before by any inhabitant of our earth, and would never be seen again by any person then

living. The day arrived and there was no cloud in the horizon." They repaired to the selected spot, and then stood in silent and anxious gaze at the sun, waiting "for the predicted moment of observation,—it came, and in the instant of contact between the planet and the sun, an emotion of joy so powerful was excited in the breast of Mr. Rittenhouse that he fainted." I love the man whose heart is formed for such sublime and ecstatic enjoyment. What a noble and affecting example? What scholar does not embrace with enthusiastic affection the man, whose soul, in view of the magnitude and exactness of Jehovah's works, is susceptible of such an overcoming glow of intellectual delight!

Would you merit the name of scholars, remember, that the only way in which you will be permitted to wear this honorable title, is by pursuing a course of patient and successful studies. We live in a day and in a land which will not indulge empty titles and lazy sinecures. You have come upon the stage at too late a period for drones and dunces to wear the mask among the sons of science. With a slight variation the genius of learning may address you, as the conqueror of the world did one of his soldiers, who was called Alexander. When he saw him faulter in courage and zeal, he said to him, "fight better, or change your name." The time has been, when the progress of knowledge was extremely slow. Age after age rolled away, and but little advance was made in the cause of science. The Europeans for two or three thousand years lived without the knowledge of agriculture, or any of the arts;

and knew little else but war and plunder. More than four thousand years passed away before there was an architect, geometrician, or coiner in all Germany and Scythia. And nearly six thousand years had gone by before Newton discovered the mechanism of the heavenly bodies, the properties of light, and the cause of the ebb and flow of the tide. But these days of slow movement have passed away; and now the hard student and the able experimenter, no longer trammelled by the false creeds of schoolmen, are making rapid and bold advances in every department of science. During the last half century the means of correspondence and intercourse have been greatly augmented, the human mind has been roused to wonderful activity, and disciplined and sharpened to a high degree of acuteness; a spirit of free inquiry and experiment has gone abroad in the earth, and its march will never be arrested, till time shall close. What have been the results of this grand movement? what have been the "conquests of general science? What scholastic intrenchment is there which she has not carried—what moss-grown battlement on which she has not planted her standard? What height is there she has not surveyed—what depth has she not explored? What desert of sand or snow, has she not traversed—what arctic sea or strait has she not navigated—what ice of four thousand winters has she not seen—what mountain or heavenly parallax has she not measured—what mineral has escaped her search—what stubborn resistances in the great field of experiment has she not overcome—what

substance has she not found means to break, or fuse, or solve, or convert into gas?"

In view of these splendid victories, which shed such a glory over the present age, will you grieve, that so much has been done, and supinely take the humble grade of mere learners and imitators, because you fancy that so little room is left for you to become original contributors to the stock of human knowledge? But yield not to such unworthy conclusions. The Ultima Thule has not yet been discovered. No literary Hercules has yet arisen to rear his pillars to mark the utmost bounds of intellectual effort. Who can set limits to the march of discovery and invention? Who can tell, but that the power of the furnace may yet be raised so high as to reduce, if not to annihilate the present received number of elementary substances? Who can tell, but that glasses may yet be so improved and combined, as to enable us, not only to see mountains and oceans upon other worlds, but to ascertain that they are gilded with populous cities? Who can tell, but that we shall, ere long, see the planets passing, like our earth, through all the varieties of seasons, now showing the silver whiteness of winter, now the flushing bloom of spring, and now the golden colors of autumn? Who can tell, but that through the increased powers of the telescope the astronomer may discover a second galaxy, now deeply sunk from mortal eyes in the blue expanse of ether? Who can say, but that some mighty genius may yet arise, and, with more success than Leibnitz, invent a universal language, which shall sink the barriers of diverse tongues, and bring the

literati of all nations into one endeared and close brotherhood? Now they are laboring in numerous insulated bodies, separated from each other by boundaries more difficult to pass, than the broadest seas and continents. But furnish them with a common symbol, by which they can with ease and celerity interchange with each other all their discoveries and improvements, and you bring these separate divisions in the scientific warfare into solid columns, more glorious and invincible than the Grecian Phalanx. In such an era as this, distinguished as it is for unexampled activity in all the highest interests of human society, how can you support a classical reputation among men of letters, without the entire consecration of your talents to the pursuits of learning? Your obligations to posterity, and especially to your country, demand this devotion of talent. The glory of Greece and Rome has long since gone down to rise no more. Though we have only the fragments of their works, yet if all that we actually possess of their writings, statues, paintings and curiosities should be annihilated, what a loss should we sustain! what a fearful void would be made in our Cabinets and Libraries! The light of science, like that of heaven, has been travelling from east to west. Shall it here set inglorious? or shall it, through our fostering care, maintain in this land the longest and the brightest day? and eventually be returned to the oriental world with augmented splendors?

But your obligation is the strongest to the country that gave you birth. You tread the soil which has been stained by the blood of your fathers.

The rich inheritance, which they have bequeathed you, cost them life and treasure. They were distinguished also, as the sons and patrons of science. Will you then prove yourselves to be the worthy descendants of such illustrious ancestors? Shall the nation to which you are thus indebted be enriched by your existence? You are peculiarly happy, in relation both to the period, and to the country of your nativity. Had you been called into being in the dark ages, the powers of your minds might have remained dormant for want of proper motives to activity; or they might have been wasted upon absurd and visionary speculations. Had you been born in the meridian, or in the old age of a numerous and powerful nation, filled with profound scholars in all the sciences, and with a full complement of the first artizans, you might have withered in the shade of superior merit. Men, who have but little room for competition, or who fancy that the examples, which solicit their attention, are exalted far above their rank, will sink in despondency, rather than feel the power of emulation. But you have been born in an era, distinguished for scientific pursuits, and in a Republic which commenced its existence under peculiarly auspicious circumstances, and which is now making astonishing strides in every thing that contributes to national glory. No country on the earth opens so fair a field for literary enterprise, as these American States. The character of our government, our state and national councils, our manufacturing and commercial interests, our military establishment, the value of our suffrages,

the limited term of public service, the subjugation of all our places of honor and emolument to the control of merit, the multiplication of our colleges and universities, the growing number of students and professional men, the vast extent of our language, and especially our important relations to foreign courts, are all peculiarly calculated to awaken and call into active operation all the powers of genius. Hitherto we have received almost all our classical books and works of taste from the eastern world. But shall we always be a nation of dependants and imitators? Who can tell, but that this country may yet produce a second Newton, who shall greatly enlarge the boundaries of philosophical learning? or another Milton, to sing the praises of science and freedom? Here historians may arise, who shall bless the world, not by narrations of revolting scenes of blood, or the abominations of an apostate church, but by recording the origin, the progress, and the happiness of free states, which shall yet arise to increase the blessedness of this western hemisphere. When I reflect on the immense territory over which this Republic is rapidly spreading the blessings of population, wealth and learning; when I consider the momentous subjects, which must often agitate our elective Congress, and the enrapturing prospects, which are opening before this exalted nation, my heart beats with patriotic ardor, and, for the moment, I wish that my life may be protracted to witness the political millennium of this happy land. But we must decrease, while you may increase. Long after we, your

fathers in years, are slumbering in the dust, you may survive to enjoy and bless your country.

Permit me, my young friends, to say, in conclusion, that if you would gain an honorable triumph, you must cultivate moral excellency, and employ all your attainments to advance the interests of your fellow men. The paths of virtue and piety are not only the paths of pure and lasting happiness, but furnish the best and the most powerful incentives to the pursuit of intellectual greatness. The man, who is governed by debauched principles, and indulges in the excesses of vice, will cloud and enfeeble all his mental powers. But should a life of profligacy leave your minds unimpaired, still your talents will excite the terror, rather than procure the praises of mankind. You may possess all the astonishing powers of Hume or Voltaire; but if, like them, you refuse to be guided by the God of heaven, all the light which you can give on moral subjects, will, like the ignis fatuus, only bewilder and mislead your followers. True glory consists in real goodness. In prosecuting your studies, let the honor of your Maker and the public good be your exalted motives. You despise the miser, who draws himself up into his shell, and heaps up gold and silver to satiate in secret his own avaricious eyes. While, however, you detest his covetous practices, you have some relief in the reflection, that when he dies, his chests of hoarded millions may be broken open, and their contents appropriated to objects of public utility. But who is the better for that knowledge of the literary miser, which vanishes away at the death

of the possessor? If, with a view to your own gratification merely, you should retire from the noise of the world, and shut yourselves up in your cloister, there to spend your days in collecting the sweets of polite and classical learning, you may be viewed with admiration and regret, as men would gaze at an iron colossus, which they knew contained in its trunk an invaluable treasure, secure against all attacks of human effort.

Devote then, my friends, your earliest powers, and all your acquirements to the service of your country, and to the interests of religion. Prosecute your studies, not to gratify your curiosity, or to purchase fame, but to qualify you to become distinguished benefactors to mankind.

We would congratulate you on the auspicious commencement of a new college year. May it be numbered among the happiest portions of your life. Especially, would we welcome the new accession of students to this seat of learning. May you be distinguished for close and successful application to your studies; and may your characters be unstained by the follies and vices, which too often attend a collegiate life, that you may finish your course with all the honors of moral and literary merit. Be assured that a regard to your best good dictated the subject of this Lecture. We wish to have enkindled in your breasts a quenchless zeal in the pursuit of science. We wish to have it written upon your memories as with the point of a diamond, that well directed efforts and a heart to devote all your acquisitions to the glory of God, will raise you to a high place among the luminaries and

benefactors of the world. I speak the sentiments of the Faculty of this College, when I say, that our best earthly interest is involved in its prosperity. We wish that it may shed a sure and growing light on this rising state, and hold an honorable rank among the many kindred establishments that adorn our happy nation. Its students we must view as our children, and we shall not only embrace them with the affection of a parent, during their residence here, but shall follow them, when they leave our Seminary, with the tenderest solicitude for their temporal and eternal welfare. Prosecute then your studies in the fear of God and for the good of man. Let not the pride of philosophy, and the lamentable example of a few distinguished scholars, allure you into the ranks of infidelity.—"Gratitude and every motive of virtue demand of you a reverence for the gospel. Protestant christianity has in former times given learning such support, as learning can never repay. The history of christendom bears witness to this. The names of Erasmus, of Grotius, of Bacon and a host of luminaries of science, who rise up like a wall of fire around the cause of christianity, will bear witness to this. Do you want examples of learned christians? I could not recount them all in an age. You need not be told that

> Learning has borne *such* fruit in other days,
> On all her branches; piety has found
> Friends in the friends of science, and true prayer
> Has flowed from lips wet with Castalian dews."